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(71) Applicant: **MITSUBISHI HEAVY IND LTD**

(72) Inventor: **FUJIKAWA TAKUJI
YOKOTA HIROSHI**

(54) **STEAM TURBINE**

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(57) Abstract:

PURPOSE: To enlarge a clearance in the inoperative state of a steam turbine having a movable blade disposed in a rotor and a stationary blade disposed in a blade ring while reduce the clearance in the operative state thereof so as to enhance efficiency by making the blade ring of a material having a thermal expansion coefficient lower than those of other component parts.

CONSTITUTION: In a steam turbine with a movable blade 2 embedded in a rotor 1 serving as a rotary unit while a stationary blade 4 embedded in a blade ring 3 serving as a stationary unit, the rotor 1, movable blade 2 and stationary blade 4 are made of a material having a high thermal expansion coefficient such as austenite and refractive alloy, while the blade ring 3 is made of a material having a relatively low thermal expansion coefficient such as chrome steel 12. Therefore, using a difference in thermal expansion due to a change in temperature, a clearance can be enlarged in the inoperative state of the steam turbine while the clearance can be reduced in the operative state thereof.

